

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Jun Tian

Art Unit: 2132

Conf. No.: 1787

Application No.: 10/035,830

Filed: October 18, 2001

For: CONTENT AUTHENTICATION AND  
RECOVERY USING DIGITAL WATERMARKS

VIA ELECTRONIC FILING

Examiner: V. Perungavoor

Date: November 13, 2007

**THIRD PRE-APPEAL BRIEF REQUEST FOR REVIEW**

COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Appellant requests review of the Final Rejection of claims 1, 4, 5 and 7-9 in the above-identified application. No amendment is being filed with this request.

This request is being filed with a Notice of Appeal.

The review is requested for the reason(s) stated on the attached sheets. (No more than 5 pages are provided.)

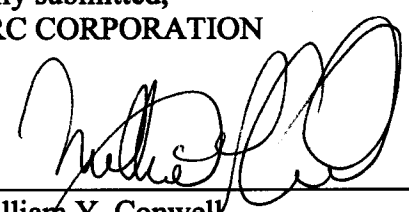
Date: November 13, 2007

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Respectfully submitted,  
DIGIMARC CORPORATION

By

  
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PRE-APPEAL BRIEF REQUEST FOR REVIEW

## **REASONS FOR PRE-APPEAL BRIEF REQUEST FOR REVIEW**

This application has now been appealed three times.

In each of the first two appeals, the Pre-Appeal Review Panel found the rejections unsuitable for presentation to the Board.

The present Final Rejection is similarly un-sustainable. The claims should proceed to issuance.

### **§ 112 Rejection (New Matter)**

Claim 1 – in a rough paraphrase – relates to embedding a compressed version of a media signal into the media signal itself. (The specification gives, as an example, JPEG-compressing an image, and embedding the compressed JPEG data in the original image data.)

The claim was rejected based on art in which a one-way hash function,<sup>1</sup> derived from a content signal, is embedded in the content signal itself.

Appellant amended claim 1 to clarify that a one-way hash function is not the “compressed” version contemplated by the claim. More particularly, the claim was amended to specify “compressing a first media signal *to generate a compressed first media signal from which a counterpart to the first media signal can later be decompressed.*”

The underlined limitation distinguishes the cited one-way hash function art. Such a hash function is not reversible. No counterpart to the original image can be derived from the hashed data.

The “counterpart” language inserted in claim 1 is supported by the specification’s disclosure of JPEG-compressed image data. As is familiar to artisans, JPEG-compressed image data can be decompressed to yield a counterpart to the original image signal. (The result is not exactly the original image signal; JPEG compression is a lossy process.)

The Board will recognize that disclosure of JPEG-compressing data supports the claim language calling for “a compressed first media signal from which a counterpart to the first media signal can later be decompressed.” The Examiner’s § 112 rejection will be reversed.

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<sup>1</sup> The cited art, Venkatesan (6,671,407), takes an image, and hashes it down to a 32 bit identifier. Col. 9, line 50.

### §102 Rejection

Claims 1 and 4 stand rejected over Venkatesan (6,671,407).

Venkatesan teaches an arrangement in which a 32-bit identifier, derived from an image through a one-way hashing procedure,<sup>2</sup> is embedded into the image.

Venkatesan's 32-bit identifier does not meet the claim requirement of "a compressed first media signal from which a counterpart to the first media signal can later be decompressed."

Venkatesan's hashing function is a one-way function. The 32-bit output identifier cannot "be decompressed" to yield a counterpart to the original media signal.

The Board will recognize this error, and reverse.

### § 103 Rejection

Claims 5 and 7-9 stand rejected over Yoshida (6,674,874) in view of Tonomura (20010051941).

Putting aside other issues, the rejections fail because Tonomura is not prior art.

The present specification draws from three priority applications, each of them filed before Tonomura's June, 2001, US filing date. The Examiner gave no consideration to Appellant's earlier priority cases.<sup>3</sup>

Again, the Board will reverse.

Because the above-noted defects are sufficient to compel reversal of each of the rejections of the appealed claims, Appellants do not further belabor this paper with other arguments concerning the rejections, the art, and the claims – all of which are reserved for possible presentation to the Board.

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<sup>2</sup> Venkatesan's procedure is detailed under the heading *Image Hash Unit*, at col. 6, line 11.

<sup>3</sup> See, e.g., Claim 6 in application 60/260,907 (filed January 10, 2001), which recites "*a decoder for reconstructing original un-watermarked media content by using watermark decoding to extract the compressed content and decompressing the compressed content.*" The reconstructed original media content meets the "perceptually similar" requirement of rejected claim 5.

Conclusion

It is regrettable that the Office has issued three Final Rejections that do not bear scrutiny.

The Panel is respectfully urged to bring this unfortunately-prolonged prosecution to a close by directing issuance of a Notice of Allowance.